

Near-Infrared Coma Colors of Comet Hale-Bopp

J. Brownlee (U. Arizona), H. Campins (U. Florida), M. Rieke, G. Rieke, C. Hergenrother (U. Arizona)

Near-infrared images of Comet Hale-Bopp were obtained on 1996 April 27, 28 and 29 UT with a NICMOS III at the University of Arizona 2.3-meter Bok telescope. We used the standard J and H (1.25 and 1.63 microns respectively) bandpasses, and the "short" Ks (2.16 microns) bandpass. At the time of these observations the comet was approximately 4.6 AU from the Sun and 4.2 AU from the Earth, at a phase angle of -12 degrees. At these wavelengths the observed flux is dominated by scattering from dust particles. The images reveal clear structure in the distribution of the coma colors, with the bluest region located near but not coincident with the photocenter, as reported by other observers (e.g., Fomenkova et al. ACM 96). We are in the process of analyzing these observations. Preliminary results show the color gradient is similar to that observed in the coma of Comet Halley at these wavelengths by Campins, Rieke and Rieke 1989 (Icarus vol. 78, p54.)

Division for Planetary Sciences Abstract Form

DPS Category 24

Running #7418

Session 0.00

Invited ☐ Poster presentation ☒ Title only ☐

Have you received your Ph.D. since the last DPS meeting?

Yes ☐ No ☒

Is your abstract newsworthy, and if so, would you be willing to prepare a news release and be available for interviews with reporters?

Yes ☒ No ☐ Maybe ☐

Paper presented by Johnathan Brownlee
1750 North Campbell Avenue

Tucson AZ 85719 USA
Phone: (520)-318-3201
Fax: (520)-621-4933
Email: jonnie@seds.lpl.arizona.edu

Special instructions: Tue Aug 27 15:49:23 CDT 1996

Membership Status (First Author):

DPS-AAS Member ☐ Non-Member ☐

Student Member ☐ Student Non-Member ☒

Is this your first DPS presentation? Yes ☒ No ☐

Sponsor: Humberto Campins

Abstract submitted for 1996 DPS meeting

Date submitted: LPI electronic form version 5/96